

PROTECTING AIR QUALITY APPENDICES

Appendix I: General Information About the Clean Air Act

Internet and Other Computer Resources

OAR World Wide Web Site - <www.epa.gov/oar/oarhome.html>

EPA's Office of Air and Radiation (OAR) is responsible for many programs designed to reduce air pollution and improve public health nationwide. OAR's web site provides a wide range of information, including fact sheets, brochures, and other documents on such topics as ozone depletion, acid rain, radon, urban air quality, global warming, pollution from mobile sources, and much more. Links are provided to each program office and to a search function. Visitors can read numerous fact sheets, regulations, and other documents online, print them directly from the site, or download them for later use. Information about the structure of the Office and key contacts is also available. Please note that the world wide address is all lower case.

Airlinks Web Page - <www.epa.gov/airlinks>

The Airlinks page provides an excellent overview of air pollution topics in the news. Information and links are updated frequently as air pollution "hot topics" change from month to month. Airlinks also provides links to other major OAR web sites and information resources.

Technology Transfer Network (TTN) <www.epa.gov/ttn>

The TTN is a web site that contains general information on Clean Air Act issues and programs, regulations, guidance documents, and fact sheets that can be accessed electronically by the public.

Written Materials

The Plain English Guide to the Clean Air Act (1993)

Explains in non-technical, straightforward language the provisions of the Clean Air Act of 1990. EPA400-K-93-001. Available from the National Center for Environmental Publications (NCEPI) 800 490-9198, and online at <www.epa.gov/epahome/publications.htm>.

What You Can Do to Reduce Air Pollution (1992)

A citizen's guide to what individuals can do to help meet the goals of the Clean Air Act of 1990. Also outlines the causes and effects of air pollution. EPA450-K-92-002. Available from NCEPI 800 490-9198, and online at <www.epa.gov/epahome/publications.htm>.

The Clean Air Act of 1990: A Primer on Consensus-Building (1992)

Outlines collaborative decision-making processes to assist agencies, organizations, and individuals embarking on consensus-building activities in the implementation of the Clean Air Act. EPA450-K-92-004. Available from NCEPI 800 490-9198, and online at <www.epa.gov/epahome/publications.htm>.

Clean Air Act Amendments of 1990: Detailed Summary of Titles (1990)

A highly detailed and relatively technical treatment of Titles I through IX of the Clean Air Act. EPA400-R-90-100. Available from NCEPI 800 490-9198, and online at <www.epa.gov/epahome/publications.htm>.

Appendix I: General Information About the Clean Air Act (cont.)

The Clean Air Act Amendments of 1990: Overview and of Summary Materials (1990)

Contains an overview of the Clean Air Act of 1990, one page summaries of the key titles, a glossary of terms, and a legislative chronology. This document serves as useful background on the Clean Air Act. EPA450-K-90-100. Available from NCEPI 800 490-9198, and online at www.epa.gov/epahome/publications.htm.

Implementation Strategy for the Clean Air Act of 1990: Update July, 1997

Summarizes plans to implement the Clean Air Act of 1990 within the time frames set by Congress. Multi-year document. EPA410-K-97-001. Available from NCEPI 800 490-9198, and online at www.epa.gov/epahome/publications.htm.

EPA Journal, The New Clean Air Act: What it Means to You (1991)

This entire edition of the Journal is devoted to discussions of various issues related to the Clean Air Act. Volume 17, No.1, January/February 1991. EPA21K-1004. Available from NCEPI 800 490-9198, and online at www.epa.gov/epahome/publications.htm.

The Clean Air Act Amendments of 1990: A Guide for Small Businesses (1992)

Explains how the various parts of the Clean Air Act can affect small businesses and how small businesses can obtain information and assistance. EPA450-K-92-001. Available from NCEPI 800 490-9198, and online at www.epa.gov/epahome/publications.htm.

Videotapes

OZONE: Double Trouble (1993)

This 18-minute video describes for the layperson the differences between stratospheric ozone and ground-level ozone (smog), how ground-level and stratospheric ozone can affect public health and the environment, and what people can do to improve air quality. OZONE: Double Trouble answers these questions in a dynamic style, with simple language, and effective visuals. Contact Dennis Shipman, 919 541-5477.

Accessing EPA Information (1996)

This telecourse provides an overview and guided tour of the various means of electronic access to EPA and other public sector sources of environmental information. Widely available and practical tools and techniques including modem connections to the Internet are described. Limited quantities available for loan. Contact Dennis Shipman, 919 541-5477.

Clean Air Act Update

During this annual telecourse, EPA representatives discuss issues and programs underway in implementing the Clean Air Act Amendments of 1990. Features include Title I nonattainment provisions, status of implementation of the Title V operating permits program, the Title III air toxics provision, and other Clean Air Act issues. Limited quantities available for loan. Contact Dennis Shipman, 919 541-5477.

Appendix I: General Information About the Clean Air Act (cont.)

ACID RAIN PROGRAM

Internet Resources and Telephone Hotlines

Acid Rain Program World Wide Web Site - <www.epa.gov/acidrain/ardhome.html>

Features fact sheets, press releases, program reports, the latest information on emissions and the allowance market, guidance documents, and regulations. Student resources also available.

Acid Rain Hotline - 202 233-9620

This voicemail system provides fact sheets and other information about acid rain and its effects via fax and mail. Callers may also leave technical and policy questions and a staff member will respond within 24 hours.

Written Materials

Acid Rain Program Brochures

The Acid Rain Program offers two brochures titled *The Acid Rain Program - It's Working* (EPA430-F-92-027) and *Environmental Benefits of Reducing Acid Rain* (EPA430-F-92-026). These brochures describe the causes and effects of acid rain, how EPA is reducing acid rain, and the benefits of this reduction. Available from NCEPI 800 490-9198, and online at <www.epa.gov/epahome/publications.htm>.

Acid Rain Fact Sheets

Fact sheets are available on all aspects of the program, including:

- Program Overview
- Environmental Benefits of Acid Rain Reduction
- Allowance System
- Allowance Auctions and Sales
- Allowance Allocations
- Permits
- Continuous Emissions Monitoring
- Excess Emissions
- Opt-in Program
- Annual Data Reconciliation
- NOx Program

Available from the Acid Rain Hotline, 202 233-9620.

US/Canada Air Quality Progress Report (1996)

Published jointly with the government of Canada, this interim report discusses the effects of acid rain in both countries. The report also contains general information on the US-Canada Air Quality Agreement. Available from the Acid Rain Hotline, 202 233-9620.

Appendix I: General Information About the Clean Air Act (cont.)

Acid Rain, A Student's First Sourcebook (1994)

Simple and concise educational text that explores the effects of acid rain on human health, forests, water quality, and buildings. The sourcebook also provides experiments and activities that demonstrate the effects of acid rain. EPA600-9-90-027A. Available from NCEPI 800 490-9198, and online at www.epa.gov/epahome/publications.htm.

Acid Rain Program Update

Periodic publication with information on new developments related to acid rain, including ongoing reports on program progress and results. Available from the Acid Rain Hotline, 202 233-9620.

Emissions Scorecard

Annual publication detailing trends in heat input and emissions of sulfur dioxide (SO₂), 2 nitrous oxides (NO_x), and carbon dioxide (CO₂) in the electric utility industry. Includes 2 state-wide and national totals in each category. Available from the Acid Rain Hotline, 202 233-9620.

Compliance Results (1995)

A summary of the first year of compliance with the Acid Rain Program. Shows the emissions reductions of affected utility units, environmental gains, monitoring performance, and program efficiency. Contains details of the 1995 annual data reconciliation. Available from the Acid Rain Hotline, 202 233-9620.

Human Health Benefits from Sulfate Reductions Under Title IV of the 1990 Clean Air Act

The result of a two-year study on health benefits of reducing atmospheric sulfate aerosol concentrations, this study finds that annual US health benefits will be between \$3 billion and \$11 billion in 1997, and between \$12 billion and \$40 billion when the program is fully implemented in 2010. Available from the Acid Rain Hotline, 202-233-9620.

Acid Deposition Standard Feasibility Study

Report to Congress on the feasibility and effectiveness of a standard to protect sensitive ecosystems from acid deposition. Integrates ecological research, emission and source-receptor modeling, and implementation and cost evaluations. Available from the Acid Rain Hotline, 202 233-9620.

AIR TOXICS REDUCTION

Internet Resources

Unified Air Toxics Website - www.epa.gov/oar/oaqps/airtox

This site provides a wide range of information on EPA's air toxics program, including health effects information and plain-English fact sheets on air toxics regulations.

Appendix I: General Information About the Clean Air Act (cont.)

Written Materials

Risk Assessment for Toxic Air Pollutants: A Citizen's Guide

This short booklet describes in plain-English the process used in determining health risks associated with exposure to toxic air pollutants. Available from the EPA's Control Technology Center Hotline, 919 541-0800.

Evaluating Exposures to Toxic Air Pollutants: A Citizen's Guide

Exposure assessment is part of the risk assessment process. This short booklet describes in plain English how exposure assessment is used to determine to what extent and/or how many people are exposed to toxic air pollutants. Available from the EPA's Control Technology Center Hotline, 919 541-0800.

A Guidebook on How to Comply with the Chromium Electroplating and Anodizing National Emission Standards for Hazardous Air Pollutants (1995)

Provides general information on how to comply with the regulation to reduce air toxics emissions from chromium electroplating operations. EPA453-B-95-001. Available from the EPA's Control Technology Center Hotline, 919 541-0800.

Guidance Document for the Halogenated Solvent Cleaner National Emission Standards for Hazardous Air Pollutants (1995)

Provides general information on how to comply with the regulation to reduce air toxics emissions from halogenated solvent cleaning operations (degreasers). EPA453-R-04-081. Available from the EPA's Control Technology Center Hotline, 919 541-0800.

New Regulation Controlling Emissions From Dry Cleaners (1994)

This brochure provides general information on how to comply with the air toxics regulation for dry cleaners. EPA453-F-94-025. Available from the EPA's Control Technology Center Hotline, 919 541-0800.

The EPA Great Waters Program: An Introduction to the Issues and the Ecosystems (1994)

This short booklet provides basic information about how air pollution contributes to water quality problems in the "Great Waters," including the Great Lakes, Lake Champlain, the Chesapeake Bay and certain other coastal waters. EPA453-B-94-030. Available from the EPA's Control Technology Center Hotline, 919 541-0800.

Chemical Accident Prevention and Clean Air Act Amendments of 1990

General information concerning the provisions of the Clean Air Act relating to prevention and management of accidental chemical releases. Available from the Emergency Planning and Community Right-to-Know Hotline, 800 535-0202.

Appendix II: EPA Regional Air Program Contacts and State Air Pollution Control Agencies

EPA Regional Air Program Contacts

U.S. EPA Region 1

Air Quality Hotline
JFK Federal Building
Boston, MA 02203

Phone: 800 821-1237

U.S. EPA Region 2

Division of Environmental Planning and
Protection (DEPP)
Air Programs Branch
290 Broadway, 26th Floor
New York, NY 10007-1866

Phone: 212 637-3725

U.S. EPA Region 3

Air and Toxics Section
Air Protection Division
841 Chestnut Building
Philadelphia, PA 19107

Phone: 212 566-2691

U.S. EPA Region 4

Air, Pesticides, and Toxic Management
Division
Atlanta Federal Center
61 Forsyth Street, SW.
Atlanta, GA 30303-3104

Phone: 404 562-9077

U.S. EPA Region 5

Air and Radiation Division
77 West Jackson Boulevard (A-18J)
Chicago, IL 60604

Phone: 312 353-2212

U.S. EPA Region 6

Multimedia Planning and Permitting
Division
Air Program

First Interstate Bank Tower
1445 Ross Avenue, Suite 1200
Dallas, TX 75202-2733

Phone: 214 665-7200

U.S. EPA Region 7

Air, RCRA and Toxics Division
726 Minnesota Avenue
Kansas City, KS 66101

Phone: 913 551-7020

U.S. EPA Region 8

Pollution Prevention, State and Tribal
Assistance
Air Program

999 18th Street, Suite 500
Denver, CO 80202-2466

Phone: 303 312-6005

U.S. EPA Region 9

Air Division
75 Hawthorne Street
San Francisco, CA 94105

Phone: 415 744-1219

U.S. EPA Region 10

1200 Sixth Avenue
Seattle, WA 98101

Phone: 206 553-2963

Appendix II: EPA Regional Air Program Contacts and State Air Pollution Control Agencies (cont.)

State Air Pollution Control Agencies

ALABAMA

Department of Environmental Management
Air Division
1751 Congress WL Dickenson Drive
Montgomery, AL 36130
Phone: 334 271-7861

ALASKA

Department of Environmental
Conservation
Air and Water Quality Division
410 Willoughby Avenue, Suite 105
Juneau, AK 99801-1795
Phone: 907 465-5100

ARIZONA

Department of Environmental Quality
Air Quality Division
3033 North Central Avenue, Fifth Floor
Phoenix, AZ 85012
Phone: 602 207-2308

ARKANSAS

Department of Pollution Control and
Ecology
Air Division
8001 National Drive
P.O. Box 8913
Little Rock, AR 72219-8913
Phone: 501 682-0750

CALIFORNIA

Air Resources Board
P.O. Box 2815
Sacramento, CA 95812
Phone: 916 445-4383

COLORADO

Department of Health
Air Pollution Control Division B-1
4300 Cherry Creek Drive South
Denver, CO 80222-1530
Phone: 303 692-3100

CONNECTICUT

Department of Environmental Protection
Bureau of Air Management
79 Elm Street
Hartford, CT 06106
Phone: 860 424-3026

DELAWARE

Department of Natural Resources and
Environmental Control
Division of Air and Waste Management
Air Quality Management Section
156 South State Street
Dover, DE 19901
Phone: 302 739-4791

DISTRICT OF COLUMBIA

D.C. Department of Consumer and
Regulatory Affairs
Environmental Regulation Administration
Air Resources Management Division
2100 Martin Luther King Avenue, SE.,
Suite 203
Washington DC 20020-5732
Phone: 202 645-6093, ext. 3067

FLORIDA

Department of Environmental Protection
Air Resources Management
Mail Station 5500
2600 Blair Stone Road
Tallahassee, FL 32399-2400
Phone: 904 488-0114

Appendix II: EPA Regional Air Program Contacts and State Air Pollution Control Agencies (cont.)

GEORGIA

Department of Natural Resources
Environmental Protection Division
Air Protection Branch
4244 International Parkway, Suite 120
Atlanta, GA 30354
Phone: 404 363-7000

HAWAII

Department of Health
Clean Air Branch
P.O. Box 3378
Honolulu, HI 96801
Phone: 808 586-4200

IDAHO

Division of Environmental Quality
Permits and Enforcement
1410 North Hilton, Third Floor
Boise, ID 83706
Phone: 208 373-0502

ILLINOIS

Environmental Protection Agency
Bureau of Air
2200 Churchill Road
P.O. Box 19276
Springfield, IL 62794-9276
Phone: 217 785-4140

INDIANA

Department of Environmental Management
Office of Air Management
100 North Senate Avenue
Indianapolis, IN 46206-6015
Phone: 317 232-5586

IOWA

Department of Natural Resources
Air Quality Bureau
7900 Hickman Road, Suite One
Urbandale, IA 50322
Phone: 515 281-8852

KANSAS

Department of Health and Environment
Bureau of Air and Radiation
Forbes Field, Building 740
Topeka, KS 66620
Phone: 913 296-1593

KENTUCKY

Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, KY 40601
Phone: 502 573-3382

LOUISIANA

Department of Environmental Quality
Office of Air Quality and Radiation
Protection
P.O. Box 82135
Baton Rouge, LA 70884-2135
Phone: 504 765-0219

MAINE

Department of Environmental Protection
Bureau of Air Quality Control
State House, Station 17
Augusta, ME 04333
Phone: 207 287-2437

MARYLAND

Department of the Environment
Air and Radiation Management
Administration
2500 Broening Highway
Baltimore, MD 21224
Phone: 410 631-3255

MASSACHUSETTS

Department of Environmental Protection
Division of Air Quality Control
One Winter Street, Seventh Floor
Boston, MA 02108
Phone: 617 292-5630

Appendix II: EPA Regional Air Program Contacts and State Air Pollution Control Agencies (cont.)

MICHIGAN

Department of Environmental Quality
Air Quality Division
PO Box 30260
Lansing, MI 48909 -7760
Phone: 517 373-7023

MINNESOTA

Pollution Control Agency
Air Quality Division
520 Lafayette Road
St. Paul, MN 55155
Phone: 612 296-7331

MISSISSIPPI

Department of Environmental Quality
Office of Pollution Control
Air Division
P.O. Box 10385
Jackson, MS 39289
Phone: 601 961-5171

MISSOURI

Department of Natural Resources
Division of Environmental Quality
Air Pollution Control Program
P.O. Box 176
Jefferson City, MO 65102
Phone: 573 751-4817

MONTANA

Department of Environmental Quality
Air and Waste Management Bureau
Medcalf Building
P.O. Box 200901
Helena, MT 59620-0901
Phone: 406 444-3454

NEBRASKA

Department of Environmental Quality
Air and Waste Management Division
1200 North Street, Suite 400
P.O. Box 98922
Lincoln, NE 68509-8922
Phone: 402 471-0001

NEVADA

Division of Environmental Protection
Bureau of Air Quality
333 West Nye Lane
Carson City, NV 89710
Phone: 702 687-4670

NEW HAMPSHIRE

Department of Environmental Services
Air Resources Division
64 North Main Street
Caller Box 2033
Concord, NH 03301
Phone: 603 271-1370

NEW JERSEY

Department of Environmental Protection
Office of Air Quality Management
401 East State Street, Seventh Floor West
Trenton, NJ 08625
Phone: 609 292-6710

NEW MEXICO

Environmental Department
Environmental Protection Division
Air Quality Bureau
Harold Runnels Building
Room S2100
P.O. Box 26110
Santa Fe, NM 87502
Phone: 505 827-0031

Appendix II: EPA Regional Air Program Contacts and State Air Pollution Control Agencies (cont.)

NEW YORK

Department of Environmental
Conservation
Division of Air Resources
50 Wolf Road
Albany, NY 12233-3250
Phone: 518 457-7230

NORTH CAROLINA

Department of Environment, Health, and
Natural Resources
Division of Air Quality
P.O. Box 29580
Raleigh, NC 27626-0580
Phone: 919 715-6232

NORTH DAKOTA

Department of Health
Division of Environmental Engineering
1200 Missouri Avenue, Room 304
P.O. Box 5520
Bismarck, ND 58506-5520
Phone: 701 328-5188

OHIO

Environment Protection Agency
Division of Air Pollution Control
P.O. Box 1049
Columbus, OH 43216-0149
Phone: 614 644-2270

OKLAHOMA

Department of Environmental Quality
Air Quality Division
4545 North Lincoln Boulevard, Suite 250
Oklahoma City, OH 73105-3483
Phone: 405 290-8247

OREGON

Department of Environmental Quality
Air Quality Division
811 SW Sixth Avenue
Portland, OR 97204
Phone: 503 229-5359

PENNSYLVANIA

Department of Environmental Resources
Bureau of Air Quality Control
400 Market Street
P.O. Box 8468
Harrisburg, PA 17105-8468
Phone: 717 787-9702

RHODE ISLAND

Department of Environmental Management
Division of Air Resources
235 Promenade Street
Providence, RI 02908-5767
Phone: 401 277-2808

SOUTH CAROLINA

Department of Health and Environmental
Control
Bureau of Air Quality Control
2600 Bull Street
Columbia, SC 29201
Phone: 803 734-4750

SOUTH DAKOTA

Department of Environmental and Natural
Resources
Air and Surface Water Program
523 East Capitol Avenue
Joe Foss Building
Pierre, SD 57501
Phone: 605 773-3351

Appendix II: EPA Regional Air Program Contacts and State Air Pollution Control Agencies (cont.)

TENNESSEE

Department of Environment and Conservation
Division of Air Pollution Control
401 Church Street, Ninth Floor
L & C Annex
Nashville, TN 37243-1531

Phone: 615 532-0554

TEXAS

Texas Natural Resource Conservation Commission
Office of Policy and Regulatory Development
P.O. Box 13087
Austin, TX 78711-3087

Phone: 512 239-5818

UTAH

Department of Environmental Quality
Division of Air Quality
150 North 1950 West
Salt Lake City, UT 84114-4820

Phone: 801 536-4000

VERMONT

Agency of Natural Resources
Air Pollution Control Division
103 South Main Street
Building Three South
Waterbury, VT 05676

Phone: 802 241-3840

VIRGINIA

Department of Environmental Quality
Air Division
P.O. Box 10009
Richmond, VA 23240

Phone: 804 698-4311

WASHINGTON

Department of Ecology
Air Program
P.O. Box 47600
Olympia, WA 98504-7600

Phone: 360 407-6800

WEST VIRGINIA

Division of Environmental Protection
Office of Air Quality
1558 Washington Street, East
Charleston, WV 25311

Phone: 304 558-3286

WISCONSIN

Department of Natural Resources
Bureau of Air Management (AM/10)
P.O. Box 7921
Madison, WI 53707

Phone: 608 266-7718

WYOMING

Department of Environmental Quality
Air Quality Division
122 West 25th Street
Cheyenne, WY 82002

Phone: 307 777-7391

AMERICAN SAMOA

Environmental Quality Commission
Governor's Office
Pago Pago, AS 96799

Phone: 684 633-4116

GUAM

Environmental Protection Agency
Air Pollution Program
Harmon Plaza
Complex Unit D-107
130 Rojas Street
Harmon, GU 96911

Phone: 671 646-8863

Appendix II: EPA Regional Air Program Contacts and State Air Pollution Control Agencies (cont.)

PUERTO RICO

Environmental Quality Board
Air Program
Ponce de Leon Avenue #431
Hatorey, PR 00917
Phone: 809 767-8129

VIRGIN ISLANDS

Division of Environmental Protection
Department of Planning and Natural
Resources
396-1 Foster Plaza
Annas Retreat
Charlotte Amalie
St. Thomas, VI 00802
Phone: 809 774-3320

Appendix III: Summary of Airborne Emission Regulations for Hazardous Waste Management Units

Subpart AA regulates organic emissions from process vents associated with distillation, fractionation, thin film evaporation, solvent extraction, and air or stream stripping operations.¹ Subpart AA only applies to these types of units managing hazardous waste streams with organic concentration levels of at least 10 parts per million by weight (ppmw). Subpart AA regulations require facilities with covered process vents to either reduce total organic emissions from all affected process vents at the facility to below 3 lb/h and 3.1 tons/year, or reduce emissions from all process vents by 95 percent through the use of a control device, such as a closed-vent system, vapor recovery unit, flare, or other combustion unit.

Subpart BB sets inspection and maintenance requirements for equipment, such as valves, pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, flanges, or control devices that contain or contact hazardous wastes with organic concentrations of at least 10 percent by weight.² Subpart BB does not establish numeric criteria for reducing emissions, it simply establishes monitoring, leak detection, and repair requirements.

Subpart CC establishes controls on tanks, surface impoundments, and containers in which hazardous waste has been placed.³ It applies only to units containing hazardous waste with an average organic concentration greater than 500 ppmw. Units managing hazardous waste that has been treated to reduce the concentrations of organics by 95 percent are exempt. Non-exempt surface impoundments must have either a rigid cover or, if wastes are not agitated or heated, a floating membrane cover. Closed vent systems are required to control the emissions from covered surface impoundments. These control systems must achieve the same 95 percent emission reductions described above under Subpart AA.

¹40 CFR §§ 264.1030-1036.

²40 CFR §§ 264.1050-1065.

³40 CFR §§ 264.1080-1091.

Appendix IV: Example List of Chemical Suppressants⁴

Type	Product	Manufacturer
Bitumens	AMS 2200, 2300®	Arco Mine Sciences
	CohereX®	Witco Chemical
	Docal 1002®	Douglas Oil Company
	PenepriME®	Utah Emulsions
	Petro Tac P®	Syntech Products Corporation
	Resinex®	Neyra Industries, Inc.
	Retain®	Dubois Chemical Company
Salts	Calcium chloride	Allied Chemical Corporation
	Dowflake, Liquid Dow®	Dow Chemical
	DP-10®	Wen-Don Corporation
	Dust Ban 8806®	Nalco Chemical Company
	Dustgard®	G.S.L. Minerals and Chemicals Corporation
	Sodium silicate	The PQ Corporation
Adhesives	Acrylic DLR-MS®	Rohm and Haas Company
	Bio Cat 300-1®	Applied Natural Systems, Inc.
	CPB-12®	Wen-Don Corporation
	Curasol AK®	American Hoechst Corporation
	DCL-40A, 1801, 1803®	Calgon Corporation
	DC-859, 875®	Betz Laboratories, Inc.
	Dust Ban®	Nalco Chemical Company
	Flambinder®	Flambeau Paper Company
	Lignosite®	Georgia Pacific Corporation
	Norlig A, 12®	Reed Lignin, Inc.
	Orzan Series®	Crown Zellerbach Corporation
	Soil Gard®	Walsh Chemical

Source: U.S. EPA. 1989. Hazardous Waste TSDF—Fugitive Particulate Matter Air Emissions Guidance Document. EPA450-3-89-019.

⁴Mention of trade names or commercial products is not intended to constitute endorsement or recommendation for use.

PROTECTING SURFACE WATER APPENDICES

Appendix I: Pretreatment Fact Sheet and FAQ

Industrial Pretreatment

The National Pretreatment Program is a cooperative effort of federal, state, and local regulatory environmental agencies established to protect water quality. The program is designed to reduce the level of pollutants discharged by industry and other non-domestic wastewater sources into municipal sewer systems, and thereby, reduce the amount of pollutants released into the environment through wastewater. The objectives of the program are to protect the Publicly Owned Treatment Works (POTW) from pollutants that may interfere with plant operation, to prevent pollutants that may pass through untreated from being introduced into the POTW, and to improve opportunities for the POTW to reuse wastewater and sludges that are generated. The term "pretreatment" refers to the requirement that nondomestic sources discharging wastewater to POTWs control their discharges, and meet limits established by EPA, the State, or local authority on the amount of pollutants allowed to be discharged. The control of the pollutants may necessitate treatment prior to discharge to the POTW (therefore the term "pretreatment"). Limits may be met by the nondomestic source through pollution prevention techniques (product substitution recycle and reuse of materials) or treatment of the wastewater.

Program objectives are:

To prevent industrial facilities' pollutant discharges from passing through municipal wastewater treatment plants untreated;

To protect treatment plants from the threat posed by untreated industrial wastewater, including explosion, fire, and interference with the treatment process; and

To improve the quality of effluents and sludges so that they can be used for beneficial purposes.

There are more than 1500 publicly owned treatment works that are required to implement local pretreatment programs. By reducing the level of pollutants discharged by industry into municipal sewage systems, the program ensures the protection of America's multi-billion dollar public investment in treatment infrastructure.

Pretreatment Facts:

REGULATORY PROVISIONS

General PT Regulations (40 CFR Part 403)

--Objectives: prevent pass through and interference (including preventing interference with sludge use and disposal); promote beneficial re-use of effluents and sludges. (See 403.2)

--National prohibited discharge standards: temperature, pH, explosive, etc. (See 403.5)

--Application of national categorical pretreatment standards (See 403.6)

--Requirements for State and local Publicly Owned Treatment Works (POTW) programs (See 403.8(f) and 403.10)

--Reporting requirements for POTWs and Industrial Users (IU) (See 403.12)

Appendix I: Pretreatment Fact Sheet and FAQ (cont.)

--Other requirements (e.g., FDF variances, net/gross adjustments) (See 403.13 - 403.17)

--Categorical Pretreatment Standards (40 CFR Parts 405 - 471)

PROGRAM STATUS

--31 of 42 NPDES States have approved Pretreatment programs.

--Approximately 1600 POTWs are required to implement Pretreatment programs.

--Pretreatment POTWs receive 80% of national wastewater flow (~ 30 billion gals/day).

--An estimated 270,000 Industrial Users (IUs) discharge to POTWs, of which there are 31,842 Significant Industrial Users (SIUs); 14,914 of the SIUs are subject to categorical standards; 16,928 of the remaining SIUs are defined by one of the following criteria: 25,000 gallons per day process flow; 5% of hydraulic or organic flow of POTW; reasonable potential to cause pass through or interference.

Industrial Pretreatment - Frequently Asked Questions

Q: What is the National Pretreatment Program?

A: The National Pretreatment Program is designed to reduce the amount of pollutants discharged by industry and other non-domestic wastewater sources into municipal sewer systems, and thereby, reduce the amount of pollutants released into the environment from publicly owned wastewater treatment plants. The program is a cooperative effort of federal, state, and local regulatory environmental agencies established to protect water quality. The objectives of the program are to protect the Publicly Owned Treatment Works (POTW) or municipal wastewater treatment facility from pollutants that may interfere with plant operation or pass through the plant untreated and to improve opportunities for the POTW to reuse treated wastewater and sludges (biosolids) that are generated. The term "pretreatment" refers to pollutant control requirements for nondomestic sources discharging wastewater to sewer systems that are connected to POTWs. Limits on the amount of pollutants allowed to be discharged are established by EPA, the State, or the local authority. Pretreatment limits may be met by the industry through pollution prevention (e.g., production substitution, recycling and reuse of materials) or treatment of the wastewater.

Q: Under what Statutory Authority is the Pretreatment Program Administered?

A: The National Pretreatment Program's authority comes from section 307 of the Federal Water Pollution Control Act (more commonly referred to as the Clean Water Act). The federal government's role in pretreatment began with the passage of the Clean Water Act in 1972. The Act called for EPA to develop national pretreatment standards to control industrial discharges into sewerage systems.

Appendix I: Pretreatment Fact Sheet and FAQ (cont.)

Q: Are there any prescribed National Standards for Pretreatment?

A: There are two sets of standards: "categorical Pretreatment Standards" and "Prohibited Discharge Standards." These are uniform national requirements which restrict the level of pollutants that may be discharged by nondomestic sources to sanitary sewer systems. All POTWs that are required to implement a Pretreatment Program must enforce the federal standards.

Q: What are Categorical Pretreatment Standards?

A: These are technology-based limitations on pollutant discharges to POTWs promulgated by EPA in accordance with Section 307 of the Clean water Act that apply to specified process wastewaters of particular industrial categories [see 40 CFR 403.6 and 40 CFR Parts 405- 471]

Q: What are Prohibited Discharge Standards?

A: These are standards that prohibit the discharge of wastes that pass through or interfere with POTW operations (including sludge management). These are the general prohibitions. There are also specific prohibitions that prohibit the discharge from all nondomestic sources certain types of wastes that 1) create a fire or explosion hazard in the collection system or treatment plant, 2) are corrosive, including any discharge with a pH less than 5.0, unless the POTW is specifically designed to handle such wastes, 3) are solid or viscous pollutants in amounts that will obstruct the flow in the collection system and treatment plant, resulting in interference with operations, 4) any pollutant discharged in quantities sufficient to interfere with POTW operations, and 5) discharges with temperatures above 140° F (40° C) when they reach the treatment plant, or hot enough to interfere with biological processes.

Q: When were the federal regulations governing pretreatment program requirements first promulgated and where can I find them?

A: The General Pretreatment Regulations were originally published in 1978, and have been updated several times (the latest changes were made on July 17, 1997) and can be found in the Code of Federal Regulations in 40 CFR Part 403.

Appendix II: State Storm-water Offices

ALABAMA

Alabama Dept. of Environmental
Management Industrial Section
P.O. Box 301463
Montgomery, AL 36130-1463
Phone: 334 271-7847

ALASKA

Department of Environmental
Conservation
Division of Air and Water Quality
410 Willovenby Avenue
Juneau, AK 99801-1795
Phone: 907 465-5300
Fax Number: 907 465-5274

ARIZONA

Arizona Department of Water Resources
Flood Mitigation Department
500 North Third Street
Phoenix, AZ 85004
Phone: 602 417-2445
Fax: 602 417-2401
Internet: [www.adwr.state.az.us/about/
address.html](http://www.adwr.state.az.us/about/address.html)

ARKANSAS

Department of Pollution Control and
Ecology
P.O. Box 8913
Little Rock, AR 72219-8913
Phone: 501 682-0744

CALIFORNIA

State Water Resources Control Board
Division of Water Quality
Attention: Storm Water Permit Unit
P.O. Box 1977
Sacramento, CA 95812-1977
Phone: 916 657-0919
Fax: 916 657-1011
Internet: www.swrcb.ca.gov/storm.htm

COLORADO

Colorado Dept. of Public Health &
Environment
Water Quality Control Division
4300 Cherry Creek Drive South
Denver, CO 80222-1530
Phone: 303 692-3500

CONNECTICUT

Department of Environmental Protection
Bureau of Water Management
79 Elm Street
Hartford, CT 06106-5127
Phone: 860 424-3850
Internet: dep.state.ct.us/Water/strategc.htm

DELAWARE

Dept. of Natural Resources and Envir.
Control
Division of Water Resources
Surface Water Discharges Section
89 Kings Highway
Dover, DE 19901
Phone: 302-739-5731
Internet: www.dnrec.state.de.us/twater.htm

FLORIDA

No state authority. Contact EPA Region 4:
U.S. EPA Region 4
Surface Water Permits and Facilities Branch
Water Management Division
61 Forsyth Street, SURFACE WATER.
Atlanta, Georgia 30303-3104
Phone: 404 562-9280
Fax: 404 562-8692

GEORGIA

Department of Natural Resources
Environmental Protection Division
Nonpoint Source Program
Floyd Tower East, Suite 1070
205 Butler Street, SE.
Atlanta, GA 30334
Phone: 404 656-4887
Internet: www.georgianet.org/dnr/

Appendix II: State Storm-water Offices (cont.)

HAWAII

Department of Health
Clean Water Branch
Engineering Section
919 Ala Moana Boulevard, Room 301
Honolulu, HI 96814-4920

Phone: 808 586-4309

IDAHO

No state authority. Contact EPA Region 10:
U.S. EPA Region 10
Office of Water
NPDES Permits Unit
1200 Sixth Avenue
Seattle, WA 98101

Phone: 206 553-1448

ILLINOIS

Illinois Department of Natural Resources
Office of Water Resources
524 South Second Street
Springfield, IL 62701-1787

Phone: 217 782-3863

Internet: dnr.state.il.us/ildnr/offices/water.htm

INDIANA

Department Of Environmental Management
NPDES Permits Group
105 South Meridian Street
Indianapolis, IN 46206

Phone: 317 232-8603

IOWA

Storm Water Permit Coordinator
Iowa Department of Natural Resources
Wallace State Office Building
900 East Grand Avenue
Des Moines, IA 50319

Phone: 515 281-7017

KANSAS

Kansas Department of Health and
Environment
Bureau of Water
Building 283—Forbes Field
Topeka, KS 66620

Phone: 785 296-5557

Internet: www.state.ks.us/public/kdhe/bow.html

KENTUCKY

Kentucky Dept. for Environmental
Protection
Division of Water
KPDES Branch
14 Reilly Road
Frankfort, KY 40601

Phone: 502 564-3410

Internet: www.state.ky.us/agencies/nrepc/dow/dwkpdes.htm

LOUISIANA

Department of Environmental Quality
Office of Water Resources
P.O. Box 82215
Baton Rouge, LA 70884-2215

Phone: 504 765-0525

MAINE

Department of Environmental Protection
Bureau of Land and Water Quality
Water Resource Regulation Division
17 State House Station
Augusta, ME 04333-0017

Phone: 207 287-3901

Internet: www.state.me.us/dep/whoswho.htm

Appendix II: State Storm-water Offices (cont.)

MARYLAND

Maryland Department of the Environment
Water Management Administration
Nonpoint Source Permits Program
2500 Broenig Highway
Baltimore, MD 21224

Phone: 410 631-3566

Internet: www.mde.state.md.us/current/regcal.html

MASSACHUSETTS

Department of Environmental Protection
Bureau of Resource Protection
Division of Water Supply
One Winter Street, Ninth Floor
Boston, MA 02108-4747

Phone: 617 556-1143

MICHIGAN

Michigan Dept. Of Environmental Quality
Surface Water Quality Division
Permits Program
P.O. Box 30273
Lansing, MI 48909

Phone: 517 373-1982

MINNESOTA

Department of Natural Resources
Division of Waters
Water Quality Division
520 Lafayette Road North
St. Paul, MN 55155

Phone: 612-296-8280

MISSISSIPPI

Department of Environmental Quality
Office of Land and Water Resources
2380 Highway 80 West
Jackson, MI 39204

Phone: 601 961-5234

MISSOURI

Department of Natural Resources
Division of Environmental Quality
Water Pollution Control Program
P.O. Box 176
Jefferson City, MO 65102

Phone: 573 526-2928

MONTANA

Department of Environmental Quality
Permitting and Compliance Division
P.O. Box 200901
Helena, MT 59620

Phone: 406 444-5329

NEBRASKA

Department of Environmental Quality
1200 N Street, Suite 400
Lincoln, NE 68509

Phone: 402 471-2023

NEVADA

Dept. of Conservation and Natural
Resources
Environmental Protection Division
333 West Nye Lane, Room 129
Carson City, NV 89706-0851

Phone: 702 687-4670, Ext. 3149

NEW HAMPSHIRE

Department of Environmental Services
Water Division
64 North Main Street, Third Floor
Concord, NH 03301

Phone: 603 271-2457

NEW JERSEY

Department of Environmental Protection
Division of Water Quality
401 East State Street, Third Floor
P.O. Box 029
Trenton, NJ 08625

Phone: 609 633-7021

Appendix II: State Storm-water Offices (cont.)

NEW MEXICO

New Mexico Environment Department
Surface Water Quality Division
P.O. Box 26110
Santa Fe, NM 87502
Phone: 505 827-2827

NEW YORK

Department of Environmental
Conservation
Division of Water
50 Wolf Road, Room 314
Albany, NY 12233-3505
Phone: 518 457-0624
Internet: [www.dec.state.ny.us/website/
pollution/water.html](http://www.dec.state.ny.us/website/pollution/water.html)

NORTH CAROLINA

Dept. of Environment and Natural
Resources
Division of Water Quality
Water Quality Section
P.O. Box 29535
Raleigh, NC 27626-0535
Phone: 919 733-5083, ext. 525

NORTH DAKOTA

Department of Health
Environmental Engineering Division
James Collins
1200 Missouri Avenue, Room 203
Bismarck, ND 58506-5520
Phone: 701 328-5210

OHIO

Ohio EPA
Division of Surface Water
Storm water Section
P.O. Box 1049
Columbus, OH 43216-1049
Phone: 614 644-2034

OKLAHOMA

Oklahoma Dept. of Environmental Quality
Water Quality Program
1000 N.E. 10th St., WQS 0207
Oklahoma City, OK 73117-1212
Phone: 405-271-7339

OREGON

Storm Water Coordinator
Department of Environmental Quality
Water Quality Division
811 SURFACE WATER, Sixth Avenue
Portland, OR 97204
Phone: 800 452-4011

PENNSYLVANIA

Department of Environmental Protection
Bureau of Water Quality Protection
Division of Wastewater Management
RCSOB, Eleventh Floor
P.O. Box 8774
Harrisburg, PA 17105-8774
Phone: 717 787-8184

RHODE ISLAND

Department of Environmental Management
Water Resources - Permitting
235 Promenade Street
Providence, RI 02908
Phone: 401 277-6820 ext. 7710
Fax: 401 277-6177

SOUTH CAROLINA

Department of Health and Environmental
Control
Industry and Agriculture
Waste Water Division
2600 Bull Street
Columbia, SC 29201
Phone: 803 734-9250

Appendix II: State Storm-water Offices (cont.)

SOUTH DAKOTA

Dept. of Environment and Natural
Resources
Surface Water Quality
523 East Capital
Pierre, SD 57501-3181

Phone: 800 SD-STORM (737-8676)

TENNESSEE

Department of Environment and
Conservation
Division of Water Pollution Control
401 Church Street, Sixth Floor
Nashville, TN 37243

Phone: 615 532-0669

TEXAS

Texas Natural Resources Conservation
Commission
Water Resource Management
Water Quality Division, Permits
Department (MC 150)
P.O. Box 13087
Austin, TX 78711-3087

Phone: 512 239-4433

UTAH

Utah Department of Natural Resources
Division of Water Resources
1594 West North Temple
P.O. Box 146201
Salt Lake City, Utah 84114-6201
Phone: 801 538-7230
Internet: [www.nr.state.ut.us/wtrresc/
wtrresc.htm](http://www.nr.state.ut.us/wtrresc/wtrresc.htm)

VERMONT

Chief, Storm Water Section
Department of Environmental
Conservation
103 South Main Street, Sewing Building
Waterbury, VT 05671-0405

Phone: 802 244-3822

VIRGINIA

Division of Environmental Quality
State Water Control Board
Permits Section
629 East Main Street
Richmond, VA 23219

Phone: 804 698-4086

WASHINGTON

Department of Ecology
Water Quality Division
P.O. Box 47600
Olympia, WA 98594-7600

Phone: 360 407-6000

WEST VIRGINIA

Division of Environmental Protection
Office of Water Resources
1201 Greenbriar Street
Charleston, WV 25311

Phone: 304 558-0375

WISCONSIN

Department of Natural Resources
Bureau of Watershed Management
P.O. Box 7921
Madison, WI 53707

Phone: 608 267-8525

WYOMING

Department of Environmental Quality
122 West 25th Street
Cheyenne, WY 82002

Phone: 307 777-7570

Appendix III: NPDES Fact Sheet and FAQ

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PROGRAM

The Clean Water Act requires that all discharges from any point source into waters of the United States must obtain an NPDES permit. By point sources, EPA means discrete conveyances such as pipes or man made ditches. This does not necessarily mean that a household must obtain a permit to connect to a city sewer, but the facilities where discharges go directly into surface waters must obtain a permit. The reason for obtaining a permit is to protect public health and the nation's waters. The discharges that pose the most threat to public health and the nation's waters are: human wastes, ground-up food from sink disposals, laundry and bath waters, toxic chemicals and metals. Also, fecal coliform, oil and grease, pesticides, and metals are types of pollutants that when discharged into the nation's waters threaten both the health of humans and life forms in the water. If left untreated, the nation would be unable to enjoy its largest natural resource, water. Permitting, while it is regulatory, ensures that the nation's waters will be ever-improving and safe today as well as tomorrow.

National Pollutant Discharge Elimination System (NPDES) Permit Program

The Clean Water Act requires wastewater dischargers to have a permit establishing pollution limits, and specifying monitoring and reporting requirements. National Pollutant Discharge Elimination System (NPDES) permits regulate household and industrial wastes that are collected in sewers and treated at municipal wastewater treatment plants. Permits also regulate industrial point sources and concentrated animal feeding operations that discharge into other wastewater collection systems, or that discharge directly into receiving waters. More than 200,000 sources are regulated by NPDES permits nationwide.

Permits regulate discharges with the goals of 1) protecting public health and aquatic life, and 2) assuring that every facility treats wastewater. To achieve these ends, permits include the following terms and conditions:

Site-specific discharge (or effluent) limits;
Standard and site-specific compliance monitoring and reporting requirements; and
when and if regulated facilities fail to comply with the provisions of their permits, they may be subject to enforcement actions. EPA uses a variety of techniques to monitor permittees' compliance status, including on-site inspections and review of data submitted by permittees.

TYPES OF REGULATED POLLUTANTS

CONVENTIONAL POLLUTANTS are contained in the sanitary wastes of households, businesses, and industries. These pollutants include human wastes, ground-up food from sink disposals, and laundry and bath waters. Conventional pollutants include:

Fecal Coliform - These bacteria are found in the digestive tracts of humans and animals; their presence in water indicates the potential presence of pathogenic organisms.

Oil and Grease - These organic substances may include hydrocarbons, fats, oils, waxes, and

Appendix III: NPDES Fact Sheet and FAQ (cont.)

high-molecular fatty acids. Oil and grease may produce sludge solids that are difficult to process.

TOXIC POLLUTANTS are particularly harmful to animal or plant life. They are primarily grouped into organics (including pesticides, solvents, polychlorinated biphenyls (PCBs), and dioxins) and metals (including lead, silver, mercury, copper, chromium, zinc, nickel, and cadmium).

NONCONVENTIONAL POLLUTANTS are any additional substances that are not conventional or toxic that may require regulation. These include nutrients such as nitrogen and phosphorus.

NPDES Watershed Strategy

A NPDES Watershed Strategy has been developed to ensure that the NPDES Program protects watersheds as effectively as possible.

OWM developed the NPDES Watershed Strategy with input from States and EPA Regions. The final strategy reflects a first step towards the Office of Water's goal of fully integrating the NPDES permitting program into the Agency's broader Water Protection Approach.

The Watershed Strategy identifies six areas that must be addressed to improve water quality on a watershed basis nationwide, including:

Statewide coordination: Support the development of State-wide basin management frameworks, and coordinate interstate basin efforts to facilitate implementation of the Watershed Protection Approach.

NPDES Permits: Streamline the process for NPDES permit development, issuance, and review, and develop innovative approaches to permitting on a watershed basis where feasible.

Monitoring and assessment: Develop a state-wide monitoring strategy, and establish point-source ambient monitoring requirements.

Programmatic measures and environmental indicators: Revise existing national accountability measures to facilitate implementation of the Watershed Protection Approach.

Public participation: Utilize existing NPDES public participation process in development of watershed protection plans, and seek broad public participation in identifying local environmental goals.

Enforcement: Include emphasis on facilities that discharge to priority basins.

Appendix III: NPDES Fact Sheet and FAQ (cont.)

Implementation of the Watershed Strategy is now underway, and will include the completion of assessments of each State's watershed protection activities and needs. OWM will coordinate with other EPA Offices and States to ensure that ongoing program activities take watershed planning into consideration.

Wet Weather

Chief among the NPDES Program's responsibilities is the effective implementation of EPA's wet-weather strategies, including storm water management and the control of combined sewer and sanitary sewer overflows.

NPDES Storm Water Program

Storm water discharges from many sources are largely uncontrolled. For this reason, the mandate of the Storm Water Program is particularly challenging.

Amendments to the Clean Water Act established a two-phased approach to addressing storm water discharges. Phase I, currently being implemented, requires permits for separate storm water systems serving large- and medium-sized communities (those with over 100,000 inhabitants), and for storm water discharges associated with industrial and construction activity involving at least five acres.

To address the large number of industrial dischargers of storm water--at over 100,000 facilities--EPA has developed a strategy with a tiered framework to control the administrative burden while emphasizing reduction in risk to human health and ecosystems.

Phase II, which is currently under development, will address remaining storm water discharges. Ultimately, millions of potential permittees will be covered, including urban areas with populations under 100,000, smaller construction sites, and retail, commercial, and residential activities.

NPDES Program: Combined Sewer Overflows (CSOs)

In April 1994, EPA issued a policy for the control of combined sewer overflows. The policy calls for communities with CSOs to take immediate and long-term actions to address these overflow problems. Measures specified in the policy include proper operation and regular maintenance of sewer systems and CSOs, as well as the public notice in the event of overflows, to ensure that the public receives adequate notification of the impact of this health and environmental hazard.

Despite its rigorous approach to controlling combined sewer overflows, the CSO Control Policy provides communities with the flexibility to develop a workable, cost-effective solution to a major environmental problem. With significant input from key stakeholders, OWM is currently developing guidances to assist communities to implement measures for the control of CSOs as effectively as possible.

Appendix III: NPDES Fact Sheet and FAQ (cont.)

NPDES Program: Sanitary Sewer Overflows

EPA is currently in the process of evaluating the extent of sanitary sewer overflows across the country. The Agency will work with the public and with constituent groups across the country to identify and evaluate issues associated with these overflows to protect human health, property, and water quality.

NPDES Permit Program - Frequently Asked Questions

1. Who needs a NPDES Permit?

Any person discharging pollutants from a point source (direct industrial discharge or municipal wastewater) into the waters of the United States. The permit will probably contain limits on what you can discharge, monitoring and reporting requirements, and other provisions to ensure that the discharge does not hurt water quality.

2. Where do I apply for a NPDES permit?

In most States, the State environmental protection office issues NPDES permits. A few States haven't yet received EPA approval to issue NPDES permits, and in those States you get a permit from an EPA regional office. You may also need to get a State permit from these States.

Here is who you should contact:

EPA Headquarters: NPDES Branch - (202) 260-9541
EPA Regions
State Contacts

The States that do not have permits are:

Alaska (contact EPA Region X)
Arizona (contact Region IX)
Idaho (contact Region X)
Maine (contact Region I)
Massachusetts (contact Region I)
New Hampshire (contact Region I)
New Mexico (contact Region VI)
Texas (contact Region VI)
District of Columbia (contact Region III)
Puerto Rico (contact Region II)
Pacific Territories (contact EPA Region IX)
Federal Indian Reservations (contact the EPA Regional Office where the Tribe is located)

Appendix III: NPDES Fact Sheet and FAQ (cont.)

3. Which States have EPA's approval to issue NPDES permits?

4. Is it legal to have wastewater coming out of a pipe into my local receiving water (eg.lake,stream,river,wetland)?

As long as the wastewater being discharged is covered by and in compliance with an NPDES permit, there are enough controls in place to make sure the discharge is safe and that humans and aquatic life are being protected. To find out if a discharge is covered by an NPDES permit, call the EPA Regional office or the State office responsible for issuing NPDES permits.

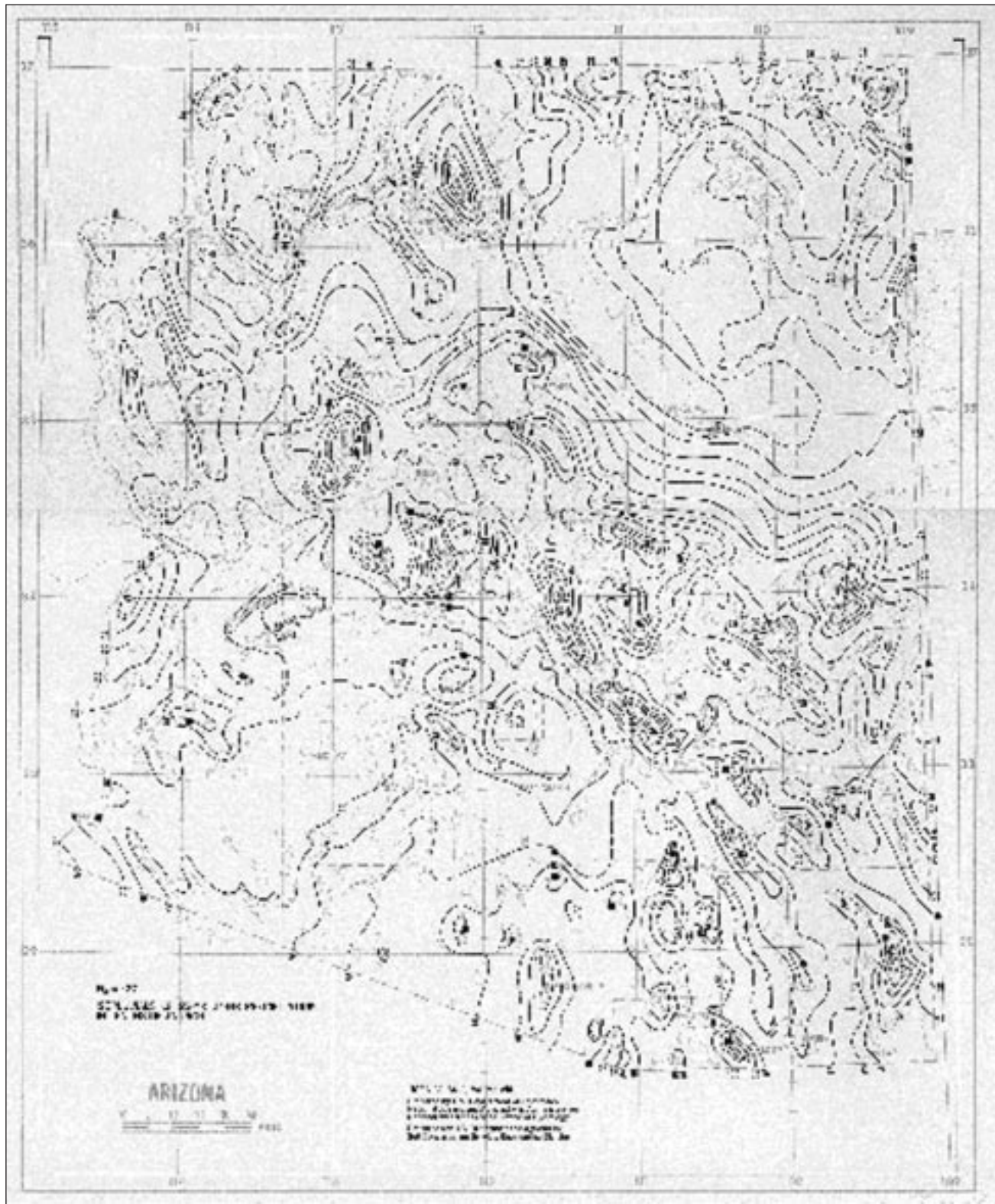
5. How do NPDES permits protect water?

An NPDES permit will generally specify an acceptable level of a pollutant or pollutant parameter in a discharge (for example, a certain level of bacteria). The permittee may choose which technologies to use to achieve that level. Some permits, however, do contain certain generic 'best management practices' (such as installing a screen over the pipe to keep debris out of the waterway). Make sure that the States mandatory standards for clean water and the federal minimums are being met.

6. Is there any information available to me on permits in my area?

Yes, there is a national system that provides certain permitting information called the Permits Compliance System (PCS).

Appendix IV: Western U.S. Precipitation Frequency Maps



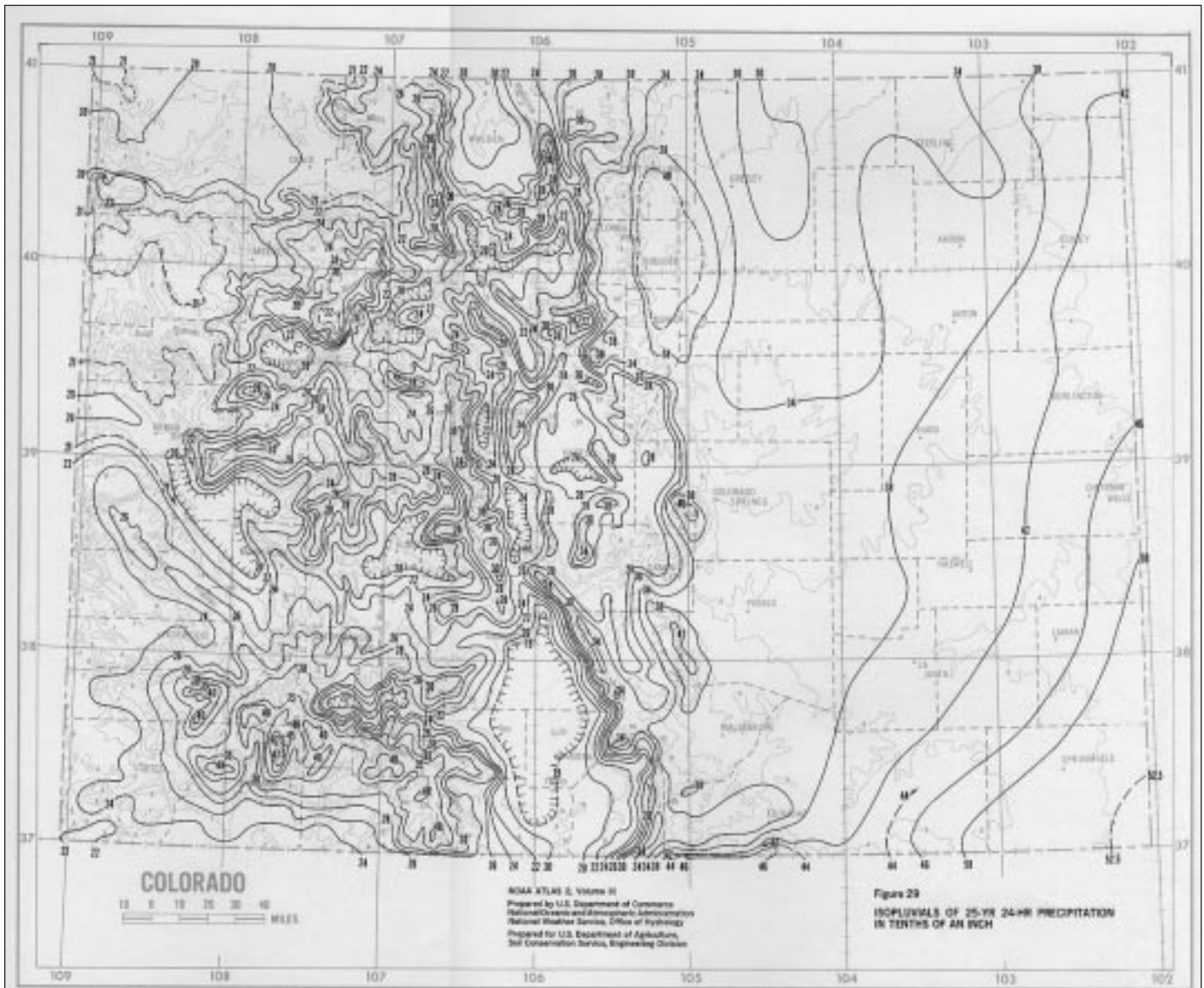
Appendix IV: Western U.S. Precipitation Frequency Maps



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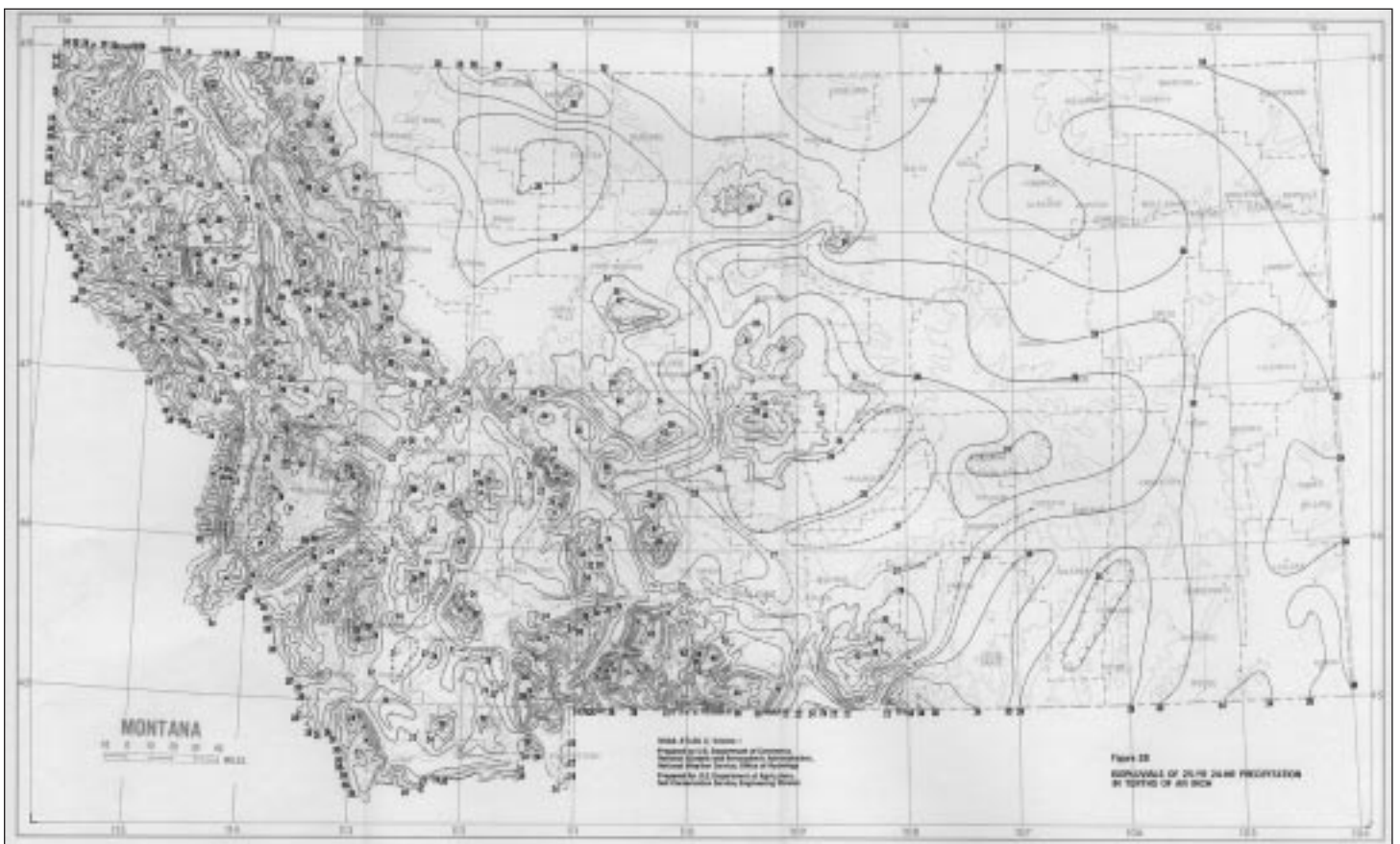
Appendix IV: Western U.S. Precipitation Frequency Maps



Appendix IV: Western U.S. Precipitation Frequency Maps



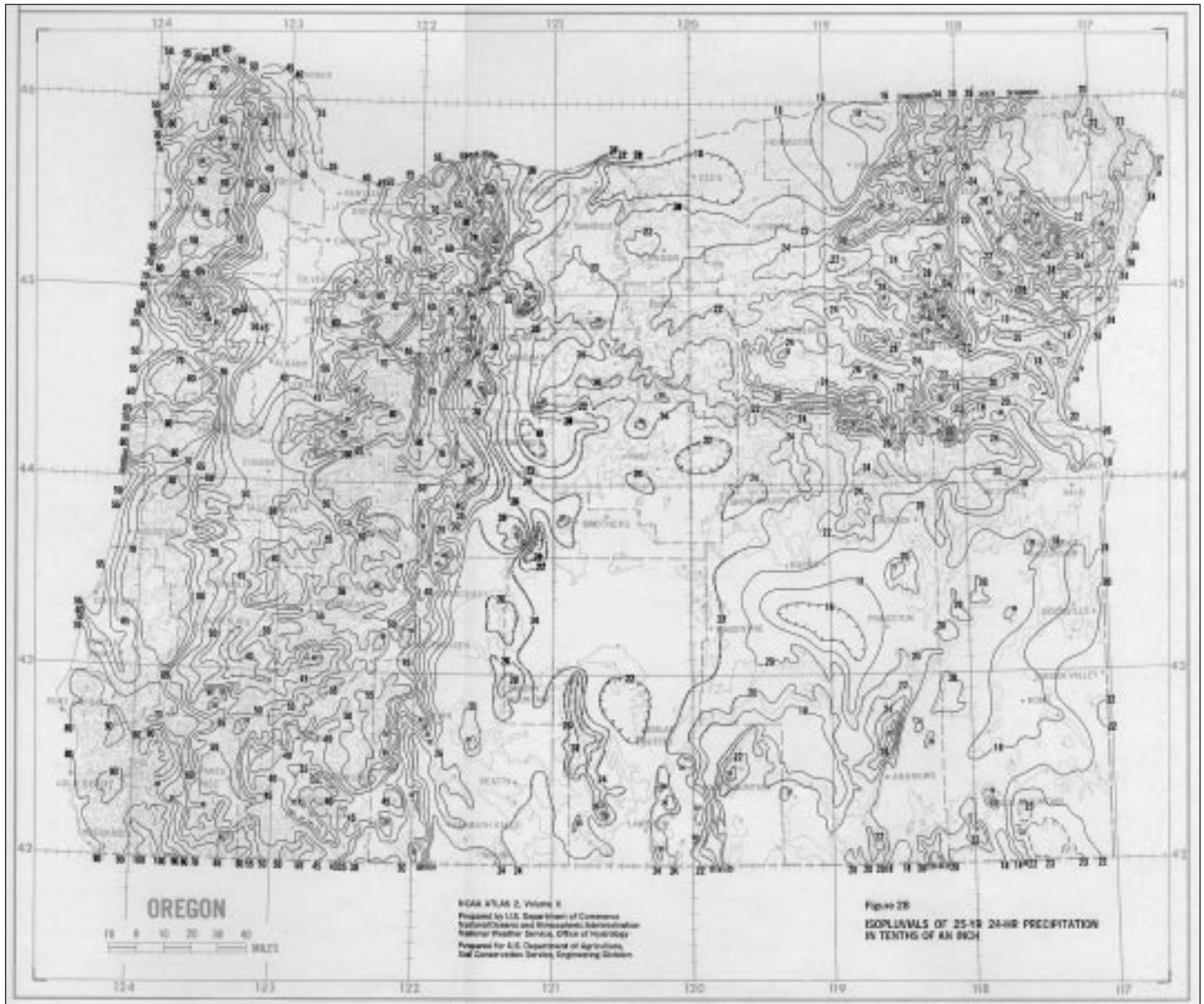
Appendix IV: Western U.S. Precipitation Frequency Maps



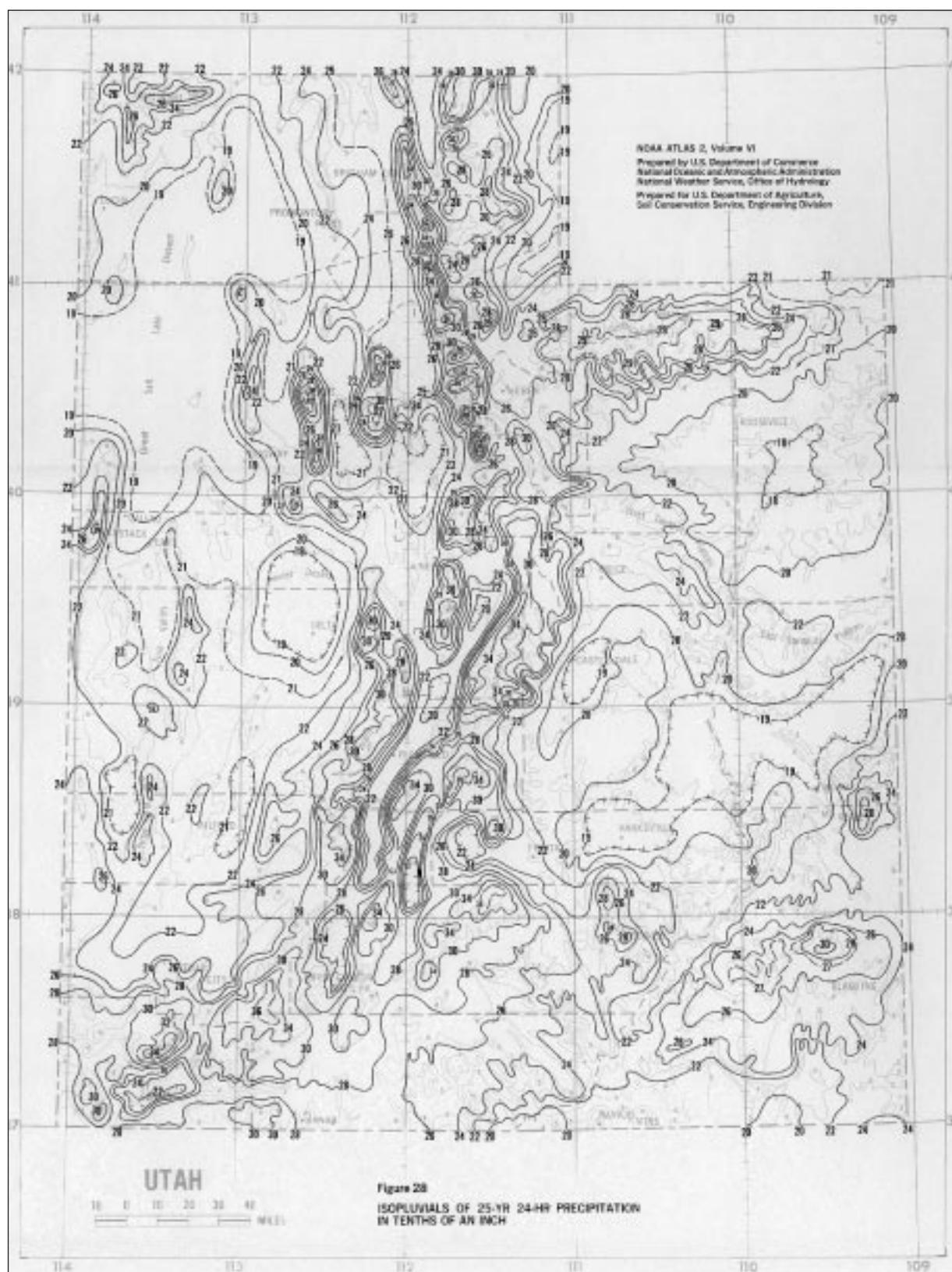
Appendix IV: Western U.S. Precipitation Frequency Maps



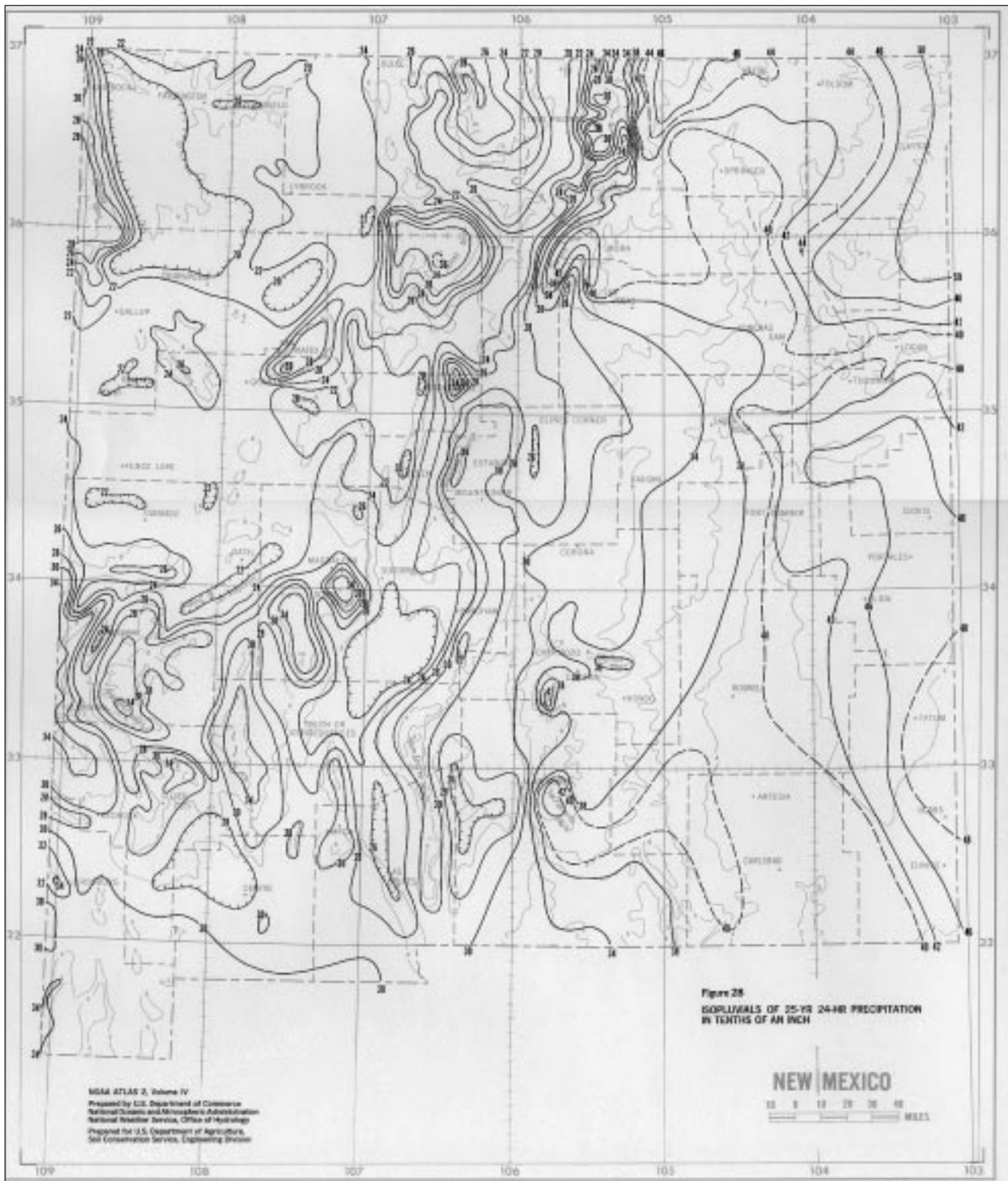
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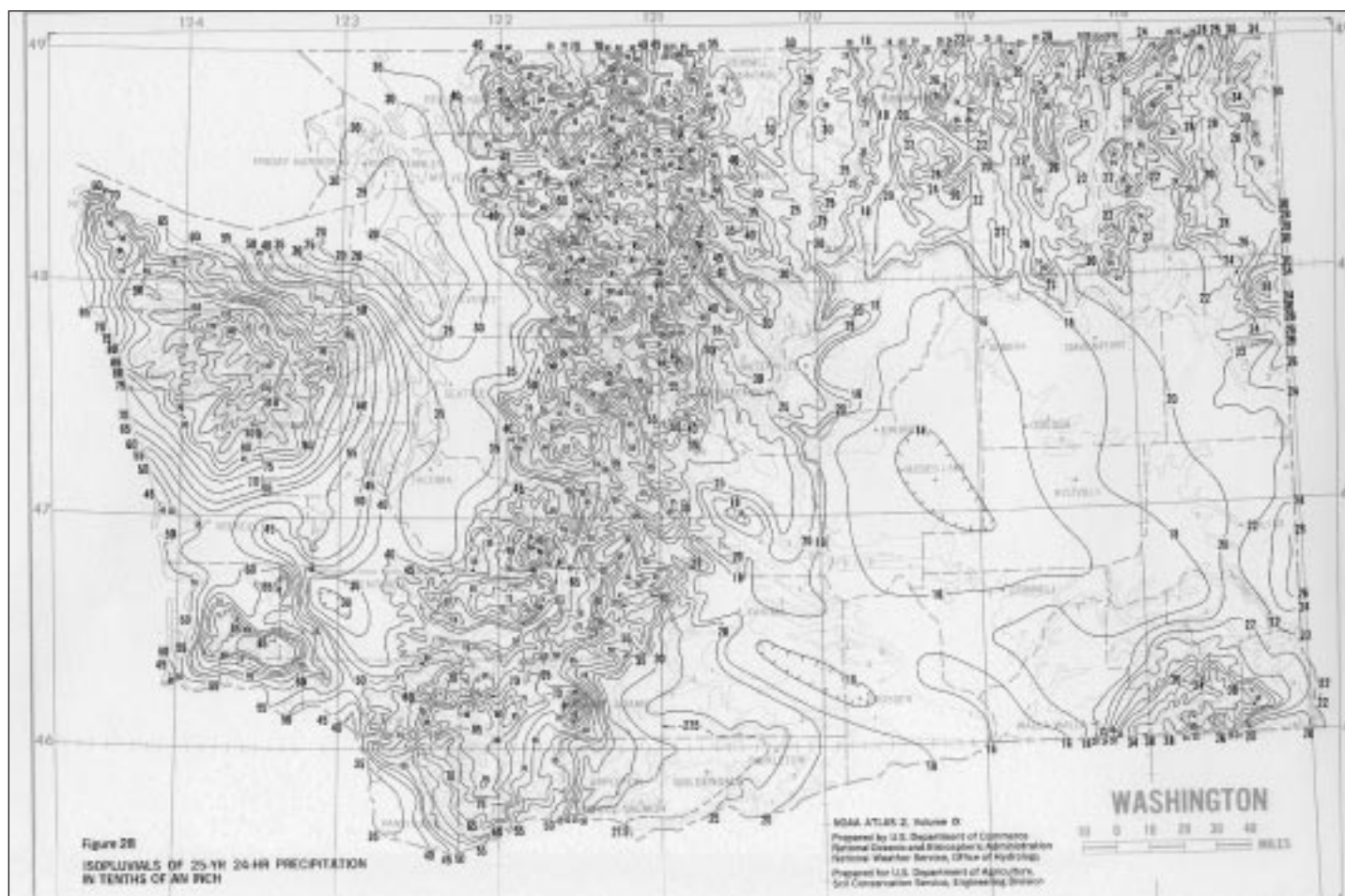
Appendix IV: Western U.S. Precipitation Frequency Maps



Appendix IV: Publications, Online Resources, and Software



Appendix IV: Western U.S. Precipitation Frequency Maps



Appendix IV: Western U.S. Precipitation Frequency Maps

